

at 11:00 a.m. on the 4th and on every Monday, Tuesday, Wednesday
0 11 4 * mon-wed date

4:00 a.m. on January 1st
0 4 1 jan * date

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While the preferred embodiment and various alternative embodiments of the invention have been disclosed and described in detail herein, it will be apparent to those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope thereof.

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I claim as my invention:

1. A spatial context system comprising:

a spatial location determiner;

a user interface which allows selection of a spatial region; and

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a database or other means of associating an event with a spatial location or a spatial region.

2. The spatial context system of Claim 1, in which said spatial location determiner is comprised of a LORAN-C, GPS, or other receiver.

3. The spatial context system of Claim 1, in which said spatial location determiner includes a manual spatial location determiner, such as a geocode, zip code, home address, set of longitude and latitude measurements, and the like.

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4. The spatial context system of Claim 1, in which said spatial region is defined by a set of spatial locations or by a spatial location and a range.

5. The spatial context system of Claim 1, in which said event includes presenting a user with pre-defined content as a user enters or exits a spatial region.

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6. The spatial context system of Claim 1, in which said event includes activating automation systems when a user enters or exists a spatial region.

7. The spatial context system of Claim 1, in which said event includes presenting a user with pre-defined content based on a frequency with which a user enters a spatial region, or a duration during which a user is within a spatial region.

8. The spatial context system of Claim 1, in which said event includes presenting a user with pre-defined content based on the current date or time, and based on user location.
9. A method of presenting content to a user based on spatial locations, comprising the
- 5 steps of:
- defining a spatial region;
 - associating content with a spatial region;
 - monitoring user location;
 - selecting appropriate content based on user location; and
 - 10 presenting such content.
10. The method of Claim 9, in which said spatial region is defined by selecting a spatial location or spatial region on a map or other graphical interface, where such spatial locations and spatial regions are converted to geocodes, GPS coordinates, LORAN-C coordinates, or other coordinates.
- 15 11. The method of Claim 9, in which said spatial region is defined by a set of one or more spatial locations, or by a spatial location and a range.
12. The method of Claim 9, in which said user location is determined by a GPS receiver or other such spatial location determination device.
13. The method of Claim 9, in which said content includes advertisements and user-
- 20 recorded reminders.
14. The method of Claim 9, in which content is selected based on user location, current date and time, and user behavior patterns.
15. The method of Claim 14, where such behavior patterns can include the duration a user stays within a spatial region or the frequency with which a user enters a spatial
- 25 region.
16. An enhanced directory system, comprising:
- a point-of-sale terminal, PDA, or other device capable of reporting its current location;
 - a wireless or wired communications means; and

a database.

17. The enhanced directory system of Claim 16, in which said point-of-sale terminal, PDA, or other device has been equipped with location determination equipment.

18. The enhanced directory system of Claim 16, in which said point-of-sale terminal, PDA, or other device contains a memory register into which a current location is stored.

19. The enhanced directory system of Claim 16, in which said database can store the current location of said point-of-sale terminal, PDA, or other device.

20. A method for creating an enhanced directory, comprising the steps of:

10 assigning a unique identifier to each device to be tracked by said directory;
gathering user or business information for each device to be tracked by said directory;
associating said user or business information with said unique identifier;
storing said association in a database;
15 determining the current location of each device to be tracked by said directory;
associating said locations with appropriate unique identifiers for each device;
storing said associations in a database;
relating both association sets; and
providing an interface through which information stored in said database may be
20 accessed.

21. The method of Claim 20, in which said unique identifier is a network address, media access control address, or other number associated with said device.

22. The method of Claim 20, in which said unique identifier is assigned by the system and stored by said device.

23. The method of Claim 20, in which said user or business information includes user or business names, addresses, telephone numbers, and other contact information.

24. The method of Claim 20, in which the location of said device is determined by location determination equipment contained in the device.

25. The method of Claim 20, in which the location of said device is determined as such a device is installed.

26. The method of Claim 20, in which the location of said device is periodically reported back to the system, thereby reflecting changes in position of said device.
27. The method of Claim 20, in which said interface may display positions associated with devices as spatial locations on a map or other graphical interface.
- 5 28. A system for recording proximity dependent waypoints and associating events with said waypoints, comprising:
 - a means for entering a spatial location, or waypoint;
 - a means for entering a proximity; and
 - a means for entering an event to be associated with said waypoint.
- 10 29. The system of Claim 28, in which said spatial location is entered via a map or other graphical interface.
30. The system of Claim 28, in which said spatial location is entered by pressing a button on or otherwise interacting with a location determination device, thereby causing said device to record the current device position and transmit said position to the
- 15 31. The system of Claim 28, in which said spatial location and an associated proximity are selected through a graphical interface, such as a web page, and stored directly in the system.
32. The system of Claim 28, in which said spatial location and an associated proximity
- 20 are selected through a graphical interface, such as a web page, stored on a computer or other device, then transmitted to the system by a local communications means or via removable media.
33. The system of Claim 28, in which said proximity is entered by selecting a region on a map or other graphical interface.
- 25 34. The system of Claim 28, in which said proximity is entered through a command line or other, non-graphical interface.
35. The system of Claim 28, in which said event is triggered when a device is within said proximity to said waypoint.

36. The system of Claim 28, in which said event includes playing a user-recorded reminder, advertisement, or other content.

37. A method of storing and transferring a spatial location associated with a given waypoint, in which said spatial location is determined and stored as a "cookie" in a web browser.

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38. A method of creating geographic network maps, comprising the steps of:

determining a client's spatial location as data is transmitted;

determining spatial locations of each router or other network device through which such data passes;

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modifying packet information to include such spatial locations;

receiving a packet and extracting such spatial locations; and

illustrating such geographic locations on a map or by other graphical means.

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